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AUTHOR Obiakor, Festus E.; And Others
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ABSTRACT

The study compared the self-concepts of visually impaired (N=61) students, and normally sighted (N=229), all in grades 6 through 9. Self-concept was assessed with the Student Self-Assessment Inventory: General and Visually Impaired Forms. Visually impaired students and 76 of the sighted students were tested with the inventory's oral format (with slight additional modifications for the visually impaired) while the remaining sighted students received the written format. Visually impaired students were all residents at special schools for the visually impaired. The measure evaluates student self-knowledge, self-esteem, and self-ideal in the areas of physical maturity, peer relations, academic success, and school adaptiveness. Results indicated that differences in self-concept scores for normally sighted and visually impaired students were small and not influenced significantly by such factors as grade level, test format, or testing procedure and provided little support for the notion that visually impaired students have lower self-concepts than sighted peers. On some measures (e.g., physical maturity self-ideal) scores favored the visually impaired students. The differences that did exist between groups showed the area-specific nature of self-concept. (DB)

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Diminished Self-Concept of the Visually Impaired: Fact or Fiction?

Festus E. Obiakor
Rust College

Stephen W. Stile

Douglas Muller

New Mexico State University

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Abstract

The study reported here examined the self-concept of visually impaired and normally sighted students using the Student Self-Assessment Inventory: General and Visually Impaired Forms. Specifically, this study questioned the perceptual notion of "low" self-concept of visually impaired students in relation to their normally sighted peers. Results indicated that while differences existed in self-concept scores for the two populations of students, the differences were area-specific in nature. On many of the self-measures (e.g., physical maturity self-ideal), the scores favored visually impaired students.

Diminished Self-Concept of the Visually Impaired: Fact or Fiction?

Through the years, visual impairment has often been singled out as the most severe of all the handicapping conditions (Hewett & Forness, 1984). For example, in their study of high school-aged exceptional children, Jones, Gottfried, and Owens (1966) found that the blind received the lowest ratings on a social acceptance scale comparing 12 populations of exceptional students.

Although Lowenfeld (1980) perceived public attitudes to be growing more positive toward the visually impaired, Hardman, Drew, and Egan (1987) have more recently observed that this perception is not entirely supported by the literature. As Hardman, Drew, and Egan (1987) put it, "attitudes of the general public are not, at present, one of acceptance and integration" (p. 299).

One inference that has been repeatedly drawn in the literature is that the attitudes of the public have somehow impacted negatively upon the self-perception or self-concept of individuals with visual impairments (Hardman, Drew, & Egan, 1987; Kirk & Gallagher, 1983; Peterson, 1987). In turn, "low" self-concept has been associated with academic under-achievement, physical incapability, and social maladjustment.

Purpose and Research Questions

As Obiakor (1986a; 1986b) has found, previous studies of self-concept in visually impaired students have suffered from questionable methodologies including the use of instrumentation

(e.g., Tennessee Self-Concept Scale; Piers-Harris Self-Concept Scale) which lack operational clarity and/or functional definitions, and, therefore, yield global scores and interpretations. The purpose of the present work is to describe the results of a recent study which employed the Self-Assessment Inventory: General Form (Muller, Larned, Leonetti, & Muller, 1984) and the Self-Assessment Inventory: Visually Impaired Form (Muller, Larned, Leonetti, & Muller, 1986) to compare the self-concepts of visually impaired and normally sighted students.

The following three research questions were addressed: (a) Is there a difference between the self-concepts of the visually impaired and normally sighted individuals? (b) Is there a difference between the self-concepts of normally sighted individuals tested orally and those tested in written format with the Student's Self-Assessment Inventory? (c) Is there a difference in self-concepts of students in different grade levels?

Method

Subjects and Setting

The original focus of the study was to compare measured self-concepts of accessible visually impaired students and randomly selected intact groups of normally sighted students. The visually impaired group was to consist of the total accessible population of visually impaired students with no other handicapping condition in grades 6 through 8 in the New Mexico School for the Visually Impaired in Alamogordo. The comparison group would consist of intact groups of normally sighted sixth, seventh, and eighth

graders from three Southern New Mexico schools. Due to limited numbers, the visually impaired population was expanded to include subjects from randomly selected schools in four time zones. Prior to the beginning of the study, three additional schools agreed to participate. These schools were the Arkansas School for the Blind at Little Rock, the Illinois School for the Visually Impaired at Jacksonville, and the Nebraska School for the Visually Handicapped at Nebraska City. Table 1 indicates that the normally sighted students in grades 6, 7, and 8 (N = 153) were tested in a written format; normally sighted sixth and eighth graders (N = 76) were tested in an oral format, and the visually impaired students (N = 61) were tested in an oral format only.

Insert Table 1 about here

Instrumentation

The Student's Self-Assessment Inventory (Muller, Larned, Leonetti & Muller, 1984; 1986) was used in the assessment of all selected subjects. The Student's Self-Assessment Inventory is a group test designed to measure the child's self-knowledge, self-esteem, and self-ideal, as they relate to four specific areas of his school life: physical maturity, peer relations, academic success, and school adaptiveness. The Student's Self-Assessment Inventory provides the following 12 measures of self-concept:

1. Physical Maturity Self-Knowledge (PMSK)
2. Physical Maturity Self-Esteem (PMSE)
3. Physical Maturity Self-Ideal (PMSI)
4. Peer Relations Self-Knowledge (PRSK)
5. Peer Relations Self-Esteem (PRSE)
6. Peer Relations Self-Ideal (PRSI)
7. Academic Success Self-Knowledge (ASSK)
8. Academic Success Self-Esteem (ASSE)
9. Academic Success Self-Ideal (ASSI)
10. School Adaptiveness Self-Knowledge (SASK)
11. School Adaptiveness Self-Esteem (SASE)
12. School Adaptiveness Self-Ideal (SASI)

The Student's Self-Assessment Inventory is used with students in grades one through nine and does not require that the student be able to read or understand English. It is designed to yield assessment information directly relevant to the educational process but avoids assessing those aspects of self-concept that are highly personal and which research has failed to link to school performance.

The Student's Self-Assessment Inventory consists of a booklet containing a series of illustrations. Each of the 26 pages in the test has two identical drawings separated by a box containing a happy face and a sad face. A story explaining the action in the set of pictures is read aloud to the subjects. Each subject is asked to respond by selecting the person in the top picture who is most like him/her (self-knowledge), the face which shows how he/

she feels about being that way (self-esteem), and the person in the bottom picture who shows how he/she would like to be (self-ideal).

Validity. Multiple correlation was used to assess the relationship between scores on the eight Student's Self-Assessment Inventory scales and the score on the Piers-Harris Children's Self-Concept (Piers-Harris, 1969). This analysis yielded a multiple correlation coefficient equal to .72, suggesting moderate concurrent validity.

Reliability. The reliability of the Student's Self-Assessment Inventory was assessed through the test-retest procedure. Reliability coefficients for the four self-knowledge scales based on a one-day test-retest interval are presented in Table 2.

Insert Table 2 about here

A more accurate picture of the reliability of the self-esteem and self-ideal scores can be obtained by examining the standard errors of measurement presented in Table 3.

Insert Table 3 about here

Visually Impaired Form. When instruments are modified or adapted for exceptional children, especially the hearing-impaired and the visually impaired, they tend to be low in their reliability and validity standards, unless they are proven otherwise (Anastasi, 1976; Salvia & Ysseldyke, 1981). Therefore, educational diagnosticians at the Alamogordo school were asked to examine the SSAI to determine whether it was a valid instrument for assessing the self-concept of visually-impaired students. They recommended that changes should be made in (a) rewording the SSAI's instructions, and (b) modifying the SSAI's answer sheet. After three meetings with the diagnosticians, it was discovered that radical changes were not needed. The following observations were made:

1. The content of test items and sequence of test items for the General Form and the Visually Impaired Form did not need change.
2. Words such as "notice" and "look" did not need to be changed because the visually impaired look and notice in the same ways as their normally sighted peers.
3. Instructions for the Visually Impaired Form needed to be delivered at a louder voice level than those of the General Form when administering the test.
4. Items 1, 2 and 3 needed to be modified. The visually impaired students play catch, but use a "beeper-ball" rather than a regular ball.
5. The visually impaired students needed different answer

sheets (with circles and squares) that are boldly printed or written in Braille. Also, the numbers in the answer sheets needed to go from left to right rather than from top to bottom.

After changes were made, there was consensus among the diagnosticians that their recommendations had been implemented, and that the revised instrument was appropriate for use with visually impaired students.

Design and Statistical Analysis

Data were subjected to two-way factorial analysis of variance for the types (normally sighted tested in a written format, normally sighted tested orally and visually impaired tested orally) and grade levels (6, 7, 8). A two-way factorial analysis of variance was utilized even though Type 2 subjects (normally sighted students tested orally) in the 7th grade were not available. This analysis was considered appropriate since the research questions did not involve interactions. Four areas of school life (physical maturity, peer relations, academic success, and school adaptiveness) were analyzed regarding two independent variables (grade and type).

Results

The following three subsections report the results in relation to each of the previously stated research questions.

Research Question Number One

Research question number one was, "Is there a difference between the self-concepts of the visually impaired and normally

sighted individuals?" The two-way factorial ANOVA revealed F Ratios of significant difference for six of the 12 self-measures for the type main effect--physical maturity self-knowledge, physical maturity self-ideal, academic success self-knowledge, academic success self-esteem, school adaptiveness self-knowledge and school adaptiveness self-esteem (F = 4.30, 11.11, 16.21, 15.74, 6.53, 3.80; df = 2/282; $p < .05$). Table 4 shows the six significant self-measures for the type main effect. A Newman-Keul analysis of the scores for the above measures (as seen in Table 5) revealed little difference in mean scores for types. A subsequent Hartley's F_{max} test failed to show heterogeneity of variance on the type main effect except for school adaptiveness self-esteem (F_{max} = 1.44, 1.75, 1.5, 1.7, 1.81, 2; k = 3, df = 152; $p < .05$).

Insert Tables 4 and 5 about here

Research Question Number Two

Research question number two was, "Is there a difference between the self-concepts of normally sighted individuals tested orally and those tested in a written format with the Student's Self-Assessment Inventory?" Tables 4 and 5 indicate parallel results for research questions one and two. The only difference was that the first research question referred to Types 1, 2, and

3, while the second research question referred to Types 1 and 2.

Research Question Number Three

Research question number three was, "Is there a difference in self-concepts of students at different grade levels?" A two-way ANOVA revealed F Ratios of significant differences for four of the 12 self-measures for the grade main effect--physical maturity self-ideal, academic success self-esteem, school adaptiveness self-esteem and school adaptiveness self-ideal (F = 6.12, 6.88, 3.51, 3.17; df = 2/282; $p < .05$). Table 6 presents the four significant self-measures for the grade main effect. A Newman-Keul analysis of the scores for the above measures revealed significant differences in means for three self-measures of the grade main effect. A subsequent Hartley's F_{max} test failed to show heterogeneity of variance for grades.

Insert Table 6 about here

Discussion

In summary, the data indicated that differences between self-concept scores for normally sighted and visually impaired students were small and not influenced significantly by such factors as grade level, test format, or testing procedure. This finding is consistent with Valasco-Barraza and Muller's (1982)

earlier study of self-concept development in Chilean, Mexican, and United States school children and provides little support for the notion that visually impaired students have "lower" self-concepts than their normally sighted peers.

The differences that did exist between groups showed the area-specific nature of self-concept. This finding is consistent with Anshel, Muller and Owens (1986), who suggested that since the factors constituting self-concept appear to be independent, individualized programs designed to enhance self-concept should be area-specific as well. However, it is important to note that there is little evidence at present that self-concept is a correlated variable (or underlying ability) with regard to academic achievement.

Table 1

Sample Size

	Type 1 NS-Printed (N=153)	Type 2 NS-O (N=76)	Type 3 VI-O (N=61)	
Grade 6 =	61	27	19	= 107
Grade 7 =	48		22	= 70
Grade 8 =	44	49	20	= 113
Totals =	153	76	61	= 290

Table 2

Reliability Coefficients for the
Student's Self-Assessment Inventory

Self-Measure	Factors			
	PM	PR	AS	SA
S-C	.86	.83	.82	.83
S-E	.77	.77	.76	.56
S-I	.76	.51	.57	.73

Table 3

Standard Errors of Measurement for the Student's Self-Assessment Inventory

Self-Measure	Factors			
	PM	PR	AS	SA
S-C	1.11	1.33	1.24	1.16
S-E	1.17	1.33	1.33	1.39
S-I	1.06	1.23	1.03	0.91

Table 4

Two-Way ANOVA Summaries for Main Effects and Interactions

Self-Measure	Grade (Gr)	Type (T)	Gr x T
Physical Maturity Self-Knowledge	11.80	33.31*	6.05
Physical Maturity Self-Esteem	1.38	9.11	2.94
Physical Maturity Self-Ideal	31.66*	57.52*	21.94**
Peer Relations Self-Knowledge	5.78	1.56	4.34
Peer Relations Self-Esteem	9.35	5.80	5.35
Peer Relations Self-Ideal	1.53	1.65	2.58
Academic Success Self-Knowledge	14.68	106.58*	29.50**
Academic Success Self-Esteem	46.09*	105.41*	19.71
Academic Success Self-Ideal	0.51	2.65	1.49
School Adaptiveness Self-Knowledge	2.66	45.10*	6.14
School Adaptiveness Self-Esteem	16.44*	17.81*	4.49
School Adaptiveness Self-Ideal	7.94*	5.50	3.13

*$p < .05$

**Gr x T Interactions are indicated here for informational purposes, but not addressed in the present study.

Table 5

Means for Type Main Effect

Self-Measures	Type 1	Type 2	Type 3
Physical Maturity Self-Knowledge	2.9	3.1	3.8
Physical Maturity Self-Esteem	4.6	4.9	4.4
Physical Maturity Self-Ideal	3.7	3.9	4.9
Peer Relations Self-Knowledge	4.6	4.7	4.6
Peer Relations Self-Esteem	4.8	5.2	4.6
Peer Relations Self-Ideal	5.3	5.4	5.2
Academic Success Self-Knowledge	2.1	2.9	3.6
Academic Success Self-Esteem	3.2	4.3	4.5
Academic Success Self-Ideal	5.4	5.5	5.2
School Adaptiveness Self-Knowledge	3.4	4.1	4.3
School Adaptiveness Self-Esteem	4.2	4.8	4.6
School Adaptiveness Self-Ideal	5.3	5.6	5.3

Table 6

Means for Grade Main Effect

Self-Measures	Grade 6	Grade 7	Grade 8
Physical Maturity Self-Knowledge	2.8	3.3	3.3
Physical Maturity Self-Esteem	4.7	4.4	4.7
Physical Maturity Self-Ideal	3.7	3.9	4.9
Peer Relations Self-Knowledge	4.6	4.2	4.7
Peer Relations Self-Esteem	4.9	4.5	5.1
Peer Relations Self-Ideal	5.3	5.4	5.4
Academic Success Self-Knowledge	2.9	2.4	2.5
Academic Success Self-Esteem	4.3	3.4	3.5
Academic Success Self-Ideal	5.4	5.3	5.3
School Adaptiveness Self-Knowledge	3.9	3.6	3.7
School Adaptiveness Self-Esteem	4.7	4.0	4.4
School Adaptiveness Self-Ideal	5.5	5.3	5.3

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About the Authors

Festus E. Obiakor, Ph.D.

Dr. Obiakor is Assistant Professor of Education at Rust College, Holly Springs, Mississippi. His Ph.D. degree is in Special Education from New Mexico State University, Las Cruces, New Mexico. The present publication is a result of his Doctoral research. He is a member of the Council of Exceptional Children, National Association for the Visually Handicapped, and Phi Delta Kappa.

Stephen Stile, Ph.D.

Dr. Stile is a Professor in Special Education at New Mexico State University. He has published numerous articles, and presented in several professional conferences. He belongs to many professional organizations, including the Council of Exceptional Children.

Douglas Muller, Ph.D.

Dr. Muller is a professor in Counseling and Educational Psychology at New Mexico State University. He has published widely in professional journals, and presented in several professional conferences. He is the author of the Student's Self-Assessment Inventory: General and Visually Impaired Forms, and of several other instruments. Dr. Muller belongs to many professional organizations, including the American Psychological Association. He is also a consultant to many corporations.